

Leek
District



Urban
Council.

JOINT REPORT
OF THE
MEDICAL OFFICER OF HEALTH
AND
SANITARY INSPECTOR
ON THE
SANITARY CONDITION OF LEEK
FOR THE YEAR 1898.



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REPORT
OF THE MEDICAL OFFICER OF HEALTH
FOR THE
LEEK URBAN SANITARY DISTRICT.

The chief thing of moment in regard to Sanitary matters in Leek during 1898 is the action of the Council in attempting to deal with the Sewage of the town for the South District. Whether the plan decided upon, and now being carried out, will prove worth the large cost involved remains to be seen ; but, judging from the enormous sums of money expended in various parts of the country for this purpose with comparative, and, in some instances, no benefit, it seems to me that the proper method of dealing with this important and most difficult question has not yet been devised, and hesitation becomes governing bodies ere incurring such expenditure when no actual injury to the health of the inhabitants of the district has been shown to have arisen from previous arrangements.

As regards the conditions affecting the general health of the people of Leek, the remarks I made in last year's report still hold good. An abundant supply of excellent water, efficient scavenging, and regular inspections of streets and dwellings, tend to continue the good results these and similar means have already developed, and testify to their value and importance.

The deaths during 1898 amount to 267—22 less than last year—comprising 128 males and 139 females, the mean age of the former being 34·4, and of the latter 37·4, averaging for each individual 36 years. This number gives a rate of mortality, according to our present estimated population, of 17·6 to 1,000 living, but it includes 9 persons brought to the Public Institutions from other districts, which, if deducted, will show the real mortality of the Leek Urban District to be 17 to 1,000 for the year.

These deaths occurred at the following ages :

Under 1 year	...	...	59
Between 1 and 5 years	...	...	31
„ 5 and 15 „	...	...	9
„ 15 and 25 „	...	...	16
„ 25 and 65 „	...	...	92
Over 65 years	...	...	60

The births registered during the year amount to 437 19 in excess of 1897—221 males and 216 females, the birth-rate being 28·8 in each 1,000 of the population. For the state of things relating to infant mortality, refer to Table 3 in the Inspector's Report.

In the *Zymotic* class of diseases there are 27 deaths, 22 from *Measles*—a severe epidemic of which disease occurred during the last four months of the year. The type was mild, but, as is frequently the case, sufficient care is not taken of the patients after the attack, the proof of which is seen in the fact that 17 of the 22 died from *Bronchitis* or *Pneumonia* supervening. *Measles* is not notified in the district. The remarks of the Inspector on “Notification of Infectious Diseases” and “Hospital Isolation” are well worthy of notice, and I beg to call attention to them in his report.

Amongst the class of diseases called *Constitutional*, an opinion was expressed that we had an excess of deaths in this district from *Cancer*, and an investigation as to its truth or otherwise was undertaken. The result is shown in a Special Report of the Inspector on November 9th, and now included in this joint one, wherein it is clearly seen that the average of local cases corresponds very nearly with that of England generally.

In reference to *Local* diseases, particularly those of Brain, Heart, Liver, and Kidney, I can only say what I have said for years, that until the habits and modes of life of the great mass of the community are very much changed, we shall never reduce the mortality from these to any appreciable extent. Under this head I beg leave to quote the following extract from a well-known and notable writer :—“Of all the causes of vital impairment and

tissue degeneration in civilized society, interferences with the proper reception and internal distribution of oxygen are the most frequent and influential in lessening man's vital resistance and longevity. Though one of the most abundant products of nature, and absolutely free to all, the amount actually taken through the lungs into the blood is materially diminished by such mental conditions as grief, anxiety, despondency, and close mental application — by injudicious and very prevalent habits of dress; by the occupancy of overcrowded and ill-ventilated rooms or houses; by too little outdoor exercise; and by the habitual use of narcotics and anæsthetics. These, by lessening the sensibility of the nervous structures, correspondingly lessen muscular activity, both voluntary and involuntary, and thereby lessen the depth and frequency of respiration. Consequently, the individual who uses any one of these agents, even within the limits of so-called moderation from day to day, through months and years, inevitably dulls his nervous energy, uses a less amount of oxygen, and slowly but surely impairs the vital properties of his tissues, and invites an early old age."

Nothing else in the mortality returns appears to call for further comment.

With regard to the ordinary work of the department, the detailed account of the Inspector is sufficient to show what has been done during the year, and I have laid monthly reports of the health of the town before the Sanitary Committee.

I now append Tables of Causes of Death and Ages at Death, with the Inspector's Report.

J. J. RITCHIE,

Medical Officer of Health.



CAUSES OF DEATH IN 1898.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Zymotic Diseases {													
Measles	1								4	6	7	4	22
Whooping Cough		1											1
Puerperal Fever		1										1	2
Typhoid Fever											1	1	2
Constitutional Diseases {													
Phthisis		3		3	2	2	1	1	1	2	1	2	18
Tubercular Diseases					1			2		1			4
Tetanus				1									1
Syphilis									1			3	4
Lycocythæmia											1		1
Cancer					2	1		2	2	2	2		11
Local Diseases {													
Diseases of Brain, &c. ...	7	2	5	6	4	3	1	1	2	1	5	1	38
„ Respiration	3	10	2	2		2	5	1	1	1	4	5	36
„ Circulation	4	2	3	4	3	3	1	4	5	4		3	36
„ Digestion	3	2		6	1	1	1		2	4	6	1	27
„ Urination	2	2	1		1		1	1		2		1	11
„ Locomotion							1						1
„ Generation								1					1
Developmental Diseases {													
Premature Birth	3				1	2	1	1	4				12
Old Age	2	1		3	2	1			2	4	2	2	19
Teething				1								1	2
Debility, &c.			1	1		2	2	1	1		1	1	10
Sudden or Violent ..	1	2					1	1	1	1		1	8
Total	26	26	12	27	17	17	15	16	26	28	30	27	267

AGES AT DEATH.

1898	0-1	1-2	2-3	3-4	4-5	Total under 5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85	85-95	Total
January ..	6	..	..	..	..	6	1	1	1	..	1	3	6	5	2	..	26
February ..	9	3	..	..	..	12	..	1	1	2	2	2	2	2	2	..	26
March ..	2	..	1	..	..	3	1	..	..	1	..	1	4	1	..	1	12
April	3	2	..	..	1	6	..	1	3	..	1	7	1	4	4	..	27
May	3	..	1	..	..	4	..	..	1	1	2	1	2	4	1	1	17
June	5	1	..	..	..	6	..	2	..	..	1	2	2	2	2	..	17
July	5	..	..	..	..	5	..	1	1	1	..	1	3	1	2	..	15
August ..	4	1	..	..	..	5	..	..	..	..	3	4	3	1	..	..	16
September	9	3	..	..	1	13	..	..	2	..	..	3	1	2	4	1	26
October ..	1	5	..	2	1	9	..	..	3	..	2	2	6	3	3	..	28
November	4	1	3	1	1	10	1	..	2	1	5	3	4	2	1	1	30
December	8	1	1	1	..	11	..	..	2	4	1	1	3	3	1	1	27
Total	59	17	6	4	4	90	3	6	16	10	15	29	38	32	23	5	267

SANITARY INSPECTOR'S REPORT.

ACTION TAKEN FOR THE ABATEMENT OF NUISANCES, &c.

During the year ending December, 1898, the following cases of Nuisance and other matters complained of were dealt with, comprising :—

60 cases of defective or want of private drainage.

1 case slop-stone drain admitting sewer gas in house dis-connected.

20 cases defective water closets.

8 „ offensive privies.

8 „ accumulation of offensive matter.

14 „ offensive cesspools filled up.

3 „ want of drain ventilation.

9 „ dilapidated buildings.

2 „ houses in a filthy condition.

4 „ nuisances arising from over-crowding.

- 1 case of slaughter-house nuisance.
- 1 „ of water course polluted by sewage.
- 1 „ of poultry kept in dwelling-house contrary to Bye-laws.
- 1 „ of nuisance from fish frying.
- 2 cases of want of proper paving in private yards attached to dwelling-houses.
- 1 case of want of privy or water closet accommodation.
- 7 cases of want of proper receptacles for ashes.
- 5 „ nuisance arising from dense black smoke.
- 12 houses, 3 schools, and 310 articles of infected bedding, &c., were disinfected or destroyed.

A considerable number of nuisances were abated on the same being intimated to the persons responsible.

There are five notices of nuisances remaining on the books not yet complied with.

OFFENSIVE PRIVIES AND CESSPOOLS.

- 14 offensive privies were converted into water closets.
- 16 offensive ashpits were abolished, and portable receptacles provided in lieu thereof.

REMOVAL OF ASHES AND NIGHT-SOIL.

The Scavenging Department removed 4397 loads of house ashes and garbage, and 318 loads of night-soil.

COMMON LODGING-HOUSES.

There are 4 houses licensed under the Common Lodging-houses Acts, for the reception of 117 casual lodgers. The regulations approved by the Local Government Board for the management of these houses have been satisfactorily observed. No case of infectious disease occurred in these houses during the year.

SLAUGHTER-HOUSES.

There are 6 Slaughter-houses within the Town licensed subject to the Bye-laws authorized by the Local Government Board.

BAKEHOUSES AND WORKSHOPS.

The Bakehouses and Workshops within the limits of the Leek Improvement Act were inspected from time to time, and any suggestion made with a view to keeping the same in a satisfactory condition complied with by the occupier. There is now only one underground bakehouse within the town.

PETROLEUM STORES.

There are two licenses in force within the Town for the keeping or sale of Petroleum or other substances of a like nature.

GAS SUPPLY.

The purity of the Gas supplied to the Town was tested from time to time in the manner required by the 34th and 35th Vic., cap. 41. Impurity arising from the presence of sulphuretted hydrogen was shewn by the tests on three days during the year 1898.

NOTIFICATION OF INFECTIOUS DISEASE.

During the year ending 1898, 27 cases of infectious diseases, consisting of 16 cases of scarlet fever ; 10 of enteric fever ; and 1 from puerperal fever were notified during the year, and the necessary steps promptly taken to prevent the spread of the disease. 19 of these cases were removed to the hospital, and the remainder treated at their homes. Notwithstanding the efforts of the department, it has been found exceedingly difficult in many cases to secure satisfactory isolation of cases of infectious disease at home. Thoughtless persons attending upon the patient mixing with others without taking proper precautions, and receiving visitors into the infected house, have been the means of spreading the infection to a large extent. In other instances, especially scarlet fever, cases have been of so mild a character that it was not thought necessary to call in the doctor, and the case has gone unrecognised, the children being allowed to mix with others,

and spread the infection. The source of milk supply is recorded in every case of infectious disease notified, and we have no evidence of any mischief resulting from its distribution.

ISOLATION HOSPITAL.

Year ending December, 1898.

Number of patients in Hospital, Jan. 1st, 1898	...	...	5
Do. do. admitted during the year	...	...	22
Do. do. discharged do.	...	...	20
Do. do. died do.	...	...	1
Do. do. in Hospital, Dec. 31st, 1898	...	...	6

The average duration in Hospital of each patient discharged was 47 days.

Of the 95 Patients admitted during the two years ending December, 1898, only one died, which speaks well of the skilled management of the Matron in charge of the Nursing Staff.

INTERMENTS WITHIN THE TOWN.

During the year ending December, 1898, 5 interments took place in the Burial Ground attached to St. Edward's Church, and 2 in the ground attached to Mount Pleasant Wesleyan Chapel. The provisions of the Orders in Council relating thereto were duly observed.

TABLE I.—ABSTRACT OF THE CENSUS RETURNS OF 1851, 1861, 1871, 1881 AND 1891, WITHIN THE LIMITS OF THE LEEK IMPROVEMENT ACT.

Census Year	Area in Statute Acres	HOUSES.			PERSONS.		
		In-habited	Unin-habited	Build-ing	Males	Fe-males	TOTAL
1851	1460	1791	39	22	4315	4781	9066
1861	1460	2228	101	27	4686	5488	10174
1871	1460	2386	88	2	5087	6244	11331
1881	1460	2726	136	18	5874	6991	12865
1891	1460	3022	169	24	6420	7708	14128

TABLE 2.—POPULATION, BIRTHS AND DEATHS

Table showing the mean Population, the number of Births and Deaths, and the average annual number of Births and Deaths to 1000 persons living, and the mean Age at Death of males, females and persons within the limits of the Leek Improvement Act, during various periods of the 48 years ending 1898—(W. H. H.)

Periods.	Mean Population	Total number of		Average Annual Number of Births and Deaths to 1000 living.		Mean Age at Death.			
						Males		Females	
		Births	Deaths	Births	Deaths	Years.	Years.	Years.	Persons
10 years 1851-60	9635	3440	2819	35.7	29.3	23.5	25.9	24.8	
10 years 1861-70	10752	3516	2510	32.7	23.6	29.1	34.7	32.0	
10 years 1871-80	12098	4167	2734	34.4	22.6	30.8	32.3	31.5	
10 years 1881-90	13496	4146	2668	30.1	19.8	32.7	35.9	34.3	
1891	14154	406	257	28.7	18.2	36.9	38.6	37.8	
1892	14289	417	322	29.1	22.5	33.9	38.7	36.7	
1893	14406	425	292	29.5	20.2	36.9	39.8	38.6	
1894	14573	429	250	29.4	17.1	33.0	36.8	34.9	
1895	14746	447	295	30.3	20.0	33.9	36.5	34.8	
1896	14920	408	257	27.3	17.2	36.7	36.0	36.4	
1897	15037	418	289	27.7	19.2	38.0	40.6	39.3	
1898	15174	437	*267	28.8	17.6	34.4	37.4	36.0	

* This number includes 9 persons brought to Public Institutions from other Districts, viz., 1 from Sheen, 1 from Biddulph, 1 from Wigan, 1 from Macclesfield, 1 from Brownedge (Norton), and 2 from Smallthorne, who died in the Workhouse; 1 from Ipstones, and 1 from Basford, who died in the Cottage Hospital.

Excluding the 9 Deaths in Public Institutions in the Town of persons brought there from other Districts, the corrected annual rate of mortality in the Urban District of Leek for the year ending December, 1898, is 17 to 1,000 living. Provided the vital experience of the Urban District during the year 1898 were continued for all time hereafter, the mean duration of life of each person born would amount to 49·3 years, or 8·4 years longer life than that given for England and Wales in the "English Life Table, No. 3."

It will be seen by the foregoing No. 2 Abstract Table that during the last 18 years, the rate of mortality compared with that of the 10 years 1851-60 has been reduced 30 per cent., and the duration of life increased 30 per cent., which is equivalent to a reduction of 30 per cent. in the rate of sickness. Gradually is the fact being more fully recognised that in proportion as health is protected, and the duration of life enhanced, the wealth of the community is increased.

TABLE 3.—INFANT MORTALITY.

Table showing the number of Births ; the number of Deaths under 1 year ; and the rate of mortality to 1,000 births, within the limits of the Leek Improvement Act, during various periods of the 48 years ending 1898.

Periods.	Number of		Rate of Mor- tality to 1000.
	Births	Deaths under 1 year	
10 years 1851-60	3440	646	187·8
10 years 1861-70	3516	573	162·9
10 years 1871-80	4167	670	160·7
10 years 1881-90	4146	585	141·1
Year 1891	406	51	125·6
" 1892	417	65	155·8
" 1893	425	59	138·8
" 1894	429	71	166·3
" 1895	447	81	181·2
" 1896	408	47	115·2
" 1897	418	54	129·2
" 1898	437	59	135·0

There is no doubt but that the objectionable system of the employment of mothers of infants from their homes is, to a large extent, responsible for the loss of infant life.

TABLE 4.

Percentage of Illegitimate Births in Leek during each of the under-mentioned periods of the 48 years ending 1898.

Periods of Years.	Percentage of Illegitimate Births.
10 years 1851-60	9.7
10 years 1861-70	8.8
10 years 1871-80	8.5
10 years 1881-90	6.8
Year 1891	5.2
.. 1892	4.8
.. 1893	6.8
.. 1894	6.3
.. 1895	5.6
.. 1896	4.6
.. 1897	5.0
.. 1898	5.9

HOUSING OF THE WORKING CLASSES' ACT, 1890.

During the year 1898, it has not been necessary to resort to the provisions of this Act.

CANAL BOATS ACTS, 1877 AND 1884.

During the year ending December, 1898, I inspected 66 Canal Boats within the Urban Sanitary District of Leek. With four exceptions, the condition of the Boats and their occupants, as regards the several matters dealt with in the Acts and Regulations, was satisfactory. No proceedings were taken beyond cautioning the persons concerned.

DAIRIES, COW-SHEDS & MILK-SHOPS ORDERS, 1885.

There are 44 persons registered pursuant to the above-mentioned Orders within the Urban Sanitary District of Leek. All registered premises were inspected half-yearly. The Regulations of the Local Authority made in that behalf, which came into force on the first day of August, 1891, are being enforced. There are 223 milch cows kept within the district.

SANITARY CONDITION OF SCHOOLS.

During the last two years considerable sums have been expended by managers of Elementary Schools in increasing the accommodation, and materially improving their Sanitary condition. The total number of scholars on the register at the end of December, 1898, was 2,887, and the average per centage of attendance during that month was 80·4.

SPECIAL REPORT, 9th NOVEMBER, 1898.

In compliance with the request of the Sanitary Committee, I herewith subjoin a Table showing the average annual death-rate from cancer to 10,000 living within the Urban Sanitary District of Leek during the 47 years ending 1897.

Period of Years.	Mean Population.	Number of Deaths from Cancer.	Average annual number of Deaths to 10,000 living.
1851-60	9635	25	2·5
1861-70	10752	39	3·6
1871-80	12098	77	6·4
1881-90	13496	83	6·2
1891-7	14589	80	7·8

During the 10 years ending 1860, the average annual number of deaths from cancer to 10,000 living in England and Wales was 3·2, and in 1893 it was 7·1 to 10,000 living.

The apparent increase of cancer is accounted for to a large extent by the fact that after the issue of the revised edition of the official nomenclature of disease, all malignant growths have been returned under the head of cancer.

SPECIAL REPORT, 5th DECEMBER, 1898.

In compliance with a request of the Sanitary Committee I have extracted from the Vital Statistical Record, kept in the office, the following particulars relating to vaccination, and the number of deaths from small-pox since 1856, and the average annual death-rate from Tubercular Disease within the Urban Sanitary District of Leek during the 47 years ending 1897.

Since the year 1856, we have had eleven outbreaks of small-pox within the District. In six of these outbreaks the infection was brought by tramps ; in one outbreak the infection was brought from Ireland ; in one outbreak the infection was brought from Wales ; in one outbreak the infection was brought from Lancashire ; in one outbreak the infection was brought from the Potteries ; and in one case the source from whence the infection came could not be ascertained.

Of the 236 cases of small-pox that occurred during the period under review, 26 were recorded as unvaccinated : of this number 23 died, and 3 recovered very much disfigured. With regard to the 210 cases of small-pox amongst the vaccinated persons, the disease assumed a modified form proportionate to the efficiency of vaccination. I have never seen a case of small-pox in any person who had four distinct vaccination marks on the arm. With one exception, I have never known a vaccinated person to have confluent small-pox.

With the exception of hospital nurses, few persons have been more exposed to the infection of this loathsome disease than myself, and I can only attribute my escape from harm to the fact of having been four times vaccinated.

Average annual death-rate from Tubercular Disease to 1,000 living within the Urban Sanitary District of Leek during the 47 years ending 1897.

Period of Years.	Phthisis.		Other Tubercular Diseases.	
	Total number of Deaths.	Average annual rate to 1,000 living.	Total number of Deaths.	Average annual rate to 1,000 living.
1851-60	491	5'09	640	6 64
1861-70	409	3 81	494	4 59
1871-80	281	1'41	375	3 99
1881-90	284	1'36	355	2 03
1891-7	168	1 64	287	1 96

During the last 27 years vaccination has been practised to a large extent in Leek, and the above experience affords no evidence in favour of the contention that vaccination tends to increase the death-rate from tubercular disease.

R. FARROW,

Sanitary Inspector.

